Journal of Polymer Science

Polymer Letters Edition
Volume 21, 1983

Board of Editors: **H. Mark** • **C. G. Overberger**
Advisory Editors: **J. J. Hermans** • **H. W. Melville** • **G. Smets**
Editor: **C. G. Overberger**
Associate Editors: **E. Pearce** • **E. F. Casassa** • **H. Markovitz**

an Interscience® Publication
published by JOHN WILEY & SONS

The *Journal of Polymer Science* is published as follows: *Polymer Chemistry Edition*, monthly; *Polymer Physics Edition*, monthly; *Polymer Letters Edition*, monthly; *Polymer Symposia*, irregularly.

Published monthly (one volume per year) by John Wiley & Sons, Inc. Copyright © 1983 by John Wiley & Sons, Inc., 605 Third Avenue, New York, New York 10158. All rights reserved. Reproduction or translation of any part of this work beyond that permitted by Sections 107 or 108 of the United States Copyright Law without permission of the copyright owner is unlawful: Second-class postage paid at New York, New York, and at additional mailing offices.

The code and the copyright notice appearing at the bottom of the first page of an article in this journal indicate the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients, on the condition that the copier pay for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The per-copy fee for each article appears after the dollar sign and is to be paid through the Copyright Clearance Center, Inc., 21 Congress St., Salem, MA 01970. (The fee for articles published prior to 1978 is $1.00 per article.) This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Such permission requests and other permission inquiries should be addressed to the publisher.

Subscription price (1984): $828.00 per volume. Postage and handling outside U.S.A.: $94.00 by surface; $524.00 by air. Please allow 4 weeks for change of address. Back volumes, microfilm, and microfiche are available for previous years. Request price list from publisher.

The contents of this journal are indexed by the following: *Applied Mechanics Reviews*, *Chemical Abstracts*, *Current Contents/Physical, Chemical and Earth Sciences*, *Science Citation Index*, *Engineering Index*, *RAPRA Abstracts*, and *Chemical Titles*.

Postmaster: Send address changes to Subscription Department, John Wiley & Sons, Inc., 605 Third Avenue, New York, New York 10158.

Inquiries concerning **advertising** should be forwarded to either the U.S. Advertising Representative, Daniel S. Lipner, Weston Media Associates, 37 Gray's Farm Road, Weston, CT 06883, or to the European Advertising Representative, Richard Webb, REW Space Sales, Apartment 1, 2 Gladstone Road, Kingston-upon-Thames, Surrey KT1 3HD , U.K.

Claims for undelivered copies will be accepted only after the following issue has been received. Please enclose mailing label. Missing copies will be supplied when losses have been sustained in transit and where reserve stock will permit.

Journal of Polymer Science: Polymer Letters Edition

Contents

Volume 21, 1983

Issue 1, January 1983

Comparison of Two Carboxylate-Activating Agents for the Modification of a Synthetic Heparinoid Polyelectrolyte
L. C. Sederel, L. van der Does, T. Beugeling, J. Feijen, A. Bantjes, and S. W. Kim 1

Initiation Mechanism of Polymerization of Acrolein Induced by *N*-Ethylimidazole and Water Mixture
N. Yamashita, S. Morita, H. Yoneyama, and T. Maeshima 13

Copolymerization of Diethylaluminum Acrylate and Styrene
L. Lukasik, W. Kuran, and J. Kiryjow 17

Nondegradative Reaction of Maleic Anhydride and Molten Polypropylene in the Presence of Peroxides
N. G. Gaylord and M. K. Mishra 23

Anomalous Deformation Behavior of Poly(ether Sulfone): An Example of Stress-Accelerated Aging?
M. M. Qayyum and J. R. White 31

Arsenic Trifluoride–Arsenic Pentafluoride Synergism in the Formation of Electrically Conductive Poly(*p*-Phenylene Sulfide)
J. E. Frommer, R. L. Elsenbaumer, H. Eckhardt, and R. R. Chance 39

FTIR of Polycaprolactone/Poly(vinylidene Chloride-co-Acrylonitrile) Miscible Blends
A. Garton, M. Aubin, and R. E. Prud'homme 45

Preparation and Characterization of Cellulose Acetate Membranes for Osmosedimentation
S. P. Nunes and F. Galembeck 49

Aqueous Polymerization of Methyl Methacrylate
T. K. Paul, M. Banerjee, and R. S. Konar 57

Book Reviews 67

Announcements 73

Information for Contributors 75

Issue 2, February 1983

Polyimidehydrazide: A New Processable Heat-Resistant Polymer
A. Ray, Y. V. Rao, V. K. Bhattacharya, and S. Maiti 77

The Effect of Polydispersity on Rotational Diffusivity and Shear Viscosity of Rodlike Polymers in Concentrated Solutions
G. Marrucci and N. Grizzuti 83

Suspension Polymerization of Methyl Methacrylate Generalized Kinetic Model
K. S. Balaraman and B. D. Kulkarni 87

Molecular Weight of Polyacetylene
J. C. W. Chien, J. D. Capistran, F. E. Karasz, L. C. Dickinson, and M. A. Schen 93

Dynamic Infrared Linear Dichroism of Polymer Films under Oscillatory Deformation
I. Noda, A. E. Dowrey, and C. Marcott 99

Study of the Kinetics of *In Situ* Polymerization in Wood by Dynamic Mechanical Measurements
R. V. Subramanian and R. Hofmann 105

Water Permeation in Polymer Films. VI. Boundary Layer Resistance to Permeation
E. Sacher 111

Spontaneous Copolymerization and Diels–Alder Reaction of 1,3-Cyclohexadiene with Citraconic Anhydride
K. Nagai and H. Yonezawa 115

Mixed-Crystal Infrared Studies of Chain Folding in Melt-Crystallized Polyethylene
X. Jing and S. Krimm 123

Induced Optical Activity in the Complex of Poly-L-Lysine with Azo Dyes
H. Yamamoto, A. Nakazawa, and T. Hayakawa 131

Dielectric Loss of Polyester Resins Crosslinked by Substituted Styrenes
W. Douglas and G. Pritchard 139

Copolymerization of 5-(α-Alkenyl)-1,3,4-Oxathiazol-2-ones with Styrene and Methyl Methacrylate
R. M. Paton, I. Stobie, and R. M. Mortier 145

Book Reviews 149

Announcements 153

Issue 3, March 1983

Synthesis and Catalaselike Activity of Fe(III)–Phthalocyanine Covalently Bonded on Poly(2-Vinylpyridine-co-Styrene)
H. Shirai, S. Higaki, H. Hanabusa, and N. Hojo 157

Alteration of Reaction Specificity Induced by Synthetic Polymer in Pyridoxal Model System
H. Nakano, Y. Ohtsuka, O. Sangen, and Y. Yamamoto 163

Charge Separation in the Light-Induced Electron Transfer Reaction of Amphiphilic Copolymers Consisting of Polyanion and Phenanthrene Segments
Y. Itoh, Y. Morishima, and S. Nazakura 167

Reaction and Cationic Polymerization of 4-Methyl-2-Methylene-1,3-Dioxolane
H. Fukuda, M. Hirota, and Y. Nakashima 171

Novel Cationic and Anionic Water-Soluble Polyorthoesters
R. Szymanski and H. K. Hall, Jr. 177

Synthesis of 9-Carboxymethylcarbazole-Substituted Polydehydroalanine and Poly(dehydroalanine Methyl Ester)
K. S. Arora and C. G. Overberger 189

Selective Vinyl Polymerization of 1-Methacryloylaziridine and Reactivity of the Pendant 1-Acylaziridine Ring in the Polymer
S. Nishimoto, H. Nishikawa, T. Izukawa, Y. Haruta, and Y. Kagiya 195

Enhancement of Carbon Dioxide Sorbability of Liquid Polyethylene Glycol by Addition of Salts
M. Kawakami, H. Iwanaga, M. Yamasaki, M. Iwamoto, and S. Kagawa 199

A Note on the Binder Distribution in Networks of Cellulose Fibers
M. Rigdahl, B. Westerlind, H. Hollmark, and A. de Ruvo 205

Characterization of Antiplasticizer–Polycarbonate Interactions by ^{13}C-NMR Spin-Lattice Relaxation Studies
M. K. Gupta, J. A. Ripmeester, D. J. Carlsson, and D. M. Wiles 211

Photoinitiated Polymerization of Methyl Methacrylate and Styrene by a Phosphorus Ylide
S. Kondo, Y. Kondo, and K. Tsuda 217

Ionomeric Blends. I. Compatibilization of the Polystyrene–Poly(ethyl Acrylate) System via Ionic Interactions
P. Smith and A. Eisenberg 223

Book Reviews 231

Announcements 233

Information for Contributors 235

Issue 4, April 1983

Halato-Telechelic Polymers. IX. Some Specific Properties of Dicarboxylato Polymers Based on Group IVb Metal Ions
G. Broze, R. Jérôme, and Ph. Teyssie 237

Local Order in Amorphous Polystyrenes: A High-Resolution ^{13}C-NMR Study
J. R. Havens and J. L. Koenig 243

High-Resolution ^{13}C CP/MAS Solid-State NMR Spectroscopic Investigation of the Thermal Decomposition of Cured Phenolic Resins
C. A. Fyfe, M. S. McKinnon, A. Rudin, and W. J. Tchir 249

Brillouin Scattering in Thin Deposited Polymer Films
J. F. Rabolt, R. Zanoni, J. deValera, and G. I. Stegeman 253

Accelerated Radiation-Induced Grafting of Styrene to Polyolefins in the Presence of Acid and Polyfunctional Monomers
C. H. Ang, J. L. Garnett, R. Levot, and M. A. Long 257

On the Partial Mercerization and Crimp Development in Jute Fiber
P. K. Ray, B. K. Das, S. K. Banerjee, and S. K. Sen 263

Rigid Backbone Polymers: Thermal Behavior of Polyhexylisocyanate Mesomorphic Solutions
P. Navard, J. M. Haudin, and S. M. Aharoni 271

Copolymer of Poly(parabanic Acid) and Polyimide
G. Caraculacu, E. Scortanu, and A. A. Caraculacu 277

Grafting Vinyl Monomers onto Poly(ethylene Terephthalate). V. Graft Copolymerization of Methyl Methacrylate onto PET Fibers Using Acetylacetonate Complex of Tetravalent Vanadium
S. Lenka 281

The Selective Uniplanar Orientation Phenomenon in Regenerated Cellulose Sheets Derived from Microfibrillated Wood Pulp by Mercerization
H. Yokota 285

Diffusion and Orientability of Rigid-Rod Molecules
J. A. Odell, E. D. T. Atkins, and A. Keller 289

Book Reviews 301

Announcements 313

Issue 5, May 1983

Electrical Behavior of Layered Perovskites–Polystyrene Composites
A. Addeo, C. Carfagna, L. Nicodemo, and L. Nicolais 317

A Differential Scanning Calorimetry Method for Determining Strain-Induced Crystallization in Elastomeric Fibers
R. E. Lyon, R. J. Farris, and W. J. MacKnight 323

Metal Ion Amines as Initiators in Vinyl Polymerization
S. K. Saha and A. K. Chaudhuri 329

Plasma-Initiated Polymerization of Sodium Sulfohexyl Methacrylate
W. Y. Chen, D. H. Sun, G. L. Chang, X. D. Feng (S. D. Voong), and G. B. Chang 335

Molecular Orientation in PMMA Uniaxially Deformed Above the Glass Transition Temperature
D. J. Brown and G. R. Mitchell 341

Heterogeneous Nucleation Studies on Polypropylene
M. Al-Ghazawi and R. P. Sheldon 347

Application of Polymer Films Plasma Polymerized in the Tetramethylsilane/Ammonia Mixture to Moisture Sensor
N. Inagaki, K. Suzuki, and K. Nejigaki 353

Copolymerization of Alkyl Isopropenyl Ketone with Styrene
A. Kinoshita and I. Naito 359

Vapor Phase Photografting of Maleic Anhydride on Polymer Films
H. Kubota, N. Yoshino, and Y. Ogiwara 367

Photoinitiated Ring-Opening Polymerization of 2-Methylene-1,3-Dioxepane
T. Endo, M. Okawara, W. J. Bailey, K. Azuma, K. Nate, and H. Yokono 373

Synthesis and Characterization of a Polymeric, Water-Soluble Chelator for Fe(III)
M. I. Dawson, P. D. Hobbs, and D. J. Dawson 381

Exploratory Ring-Opening Polymerization. VII. Ring-Opening Polymerization of 2-Alkoxy-6-Alkyl-3,4-Dihydro-2H-Pyrans: A Synthetic Route to Head-to-Head Alternating Copolymers of Vinyl Ketones and Vinyl Ethers
I. Cho and J-Y. Lee 389

Anionic Living Polymerization of *p*-*N*,*N*-Bis(trimethylsilyl)aminostyrene. Synthesis of Linear Poly(*p*-Aminostyrene) with a Narrow Molecular Weight Distribution
K. Yamaguchi, A. Hirao, K. Suzuki, K. Takenaka, S. Nakahama, and N. Yamazaki . 395

Thermal Degradation of Selectively Deuterated Poly(methyl Methacrylate)
A. N. Hodder, K. A. Holland, and I. D. Rae 403

Synthesis of Poly(styrene-*b*-2-Methyl-2-Oxazoline) and Its Alkaline Hydrolysis
K. Ishizu, T. Fukutomi, and T. Kakurai 405

Announcements 409

Issue 6, June 1983

Poly(secondary Amine)s from Diacrylates and Diamines
E. Shchori 413

Determination of Pore Sizes at the Skin Layer of Aromatic Polyamidohydrazide Ultrafiltration Membranes
K. Chan, T. Matsuura, and K. Rajan 417

Determination of Orientation Distribution Functions Using Solid-State Nuclear Magnetic Resonance
A. J. Brandolini and C. Dybowski 423

A Comment on the Solute Dimensions to Be Applied in Inverse Size Exclusion Chromatography
O. Chiantore 429

Exploratory Ring-Opening Polymerization. VIII. Radical Ring-Opening Polymerization of 2-Phenyl-3-Vinyloxirane: A C—C Bond Scission Polymerization of the Epoxide Ring
I. Cho and J-B. Kim 433

Mechanism of Graft Copolymerization of Vinyl Monomers onto Cellulose by Periodate
R. Narayan and G. T. Tsao 437

Poly(*p*-Phenylene Selenide): Synthesis and Conductivity Studies
K. Y. Jen, M. V. Lakshmikantham, M. Albeck, M. P. Cava, W. S. Huang, and A. G. MacDiarmid 441

Comments on "Synthesis of Hydroxyl-Terminated Polycarbonates of Controlled Number-Average Molecular Weight"
K. W. Anderson, L. J. Mathias, and J. E. McGrath 445

Synthesis of the Polyformal of Bisphenol A
A. S. Hay, F. J. Williams, H. M. Relles, B. M. Boulette, P. E. Donahue, and D. S. Johnson 449

Viscosity Reduction of Styrene–Butadiene–Styrene Block Copolymer Melts: Plasticization of the Interphase
N. Sivashinsky and D. S. Soong 459

Fibrillar Structures in Spherulites
P. D. Calvert 467

Theoretical Study of the Electronic Properties of Biphenylene Polymers: Prediction of New Highly Conducting Polymer Complexes
J. L. Brédas and R. H. Baughman 475

Temperature Dependence of Birefringence of Oriented Poly(methyl Methacrylate)
Y. Shindo and H. Hanabusa 481

Vertical Distribution of Components in a Polymer Blend with the Aid of the Secondary Ion Mass Spectroscopy
R. Chûjô, T. Nishi, Y. Sumi, T. Adachi, H. Naito, and H. Frentzel 487

Measurement of Self-Diffusion Coefficient in Polymer Melts by a Small-Angle Neutron Scattering Method
C. R. Bartels, W. W. Graessley, and B. Crist 495

Book Reviews 501

Announcements 507

Issue 7, July 1983

Concentrating a Trigger of Plasma-Initiated Polymerization of Methyl Methacrylate and Characterization of the Resulting Polymers
M. Kuzuya, K. Kamiya, T. Kawaguchi, and T. Okuda 509

A Novel Polymerization by Plasma-Fragmented Species Generated from Nonpolymerized Compounds
M. Kuzuya, T. Kawaguchi, T. Daikyo, and T. Okuda 515

Molecular Dimensions by Neutron Scattering
R. Ullman 521

Stress–Strain Properties of Graft Copolymers of Polyethylene and Acrylic Acid
I. F. Osipenko, A. P. Polikarpov, N. R. Prokopchuk, and L. P. Krul 527

Experimental Consistency of the First Cumulants Estimated by Both Shape Function and Histogram Analyses in Dynamic Light Scattering
Y. Tsunashima and N. Nemoto 531

Preferential Adsorption in the Poly(*N*-Vinylcarbazole)–Solvent–Nonsolvent System by IR Spectroscopy
F. Zamora, L. M. León, M. C. González, and G. M. Guzmán 539

Polyimides. II. Effect of Structure on Properties of Polyimides
I. K. Varma and B. S. Rao 545

Copolymerization of Dibenzofuran and Dichloromethane
S. P. Rao, M. B. Jones, R. J. Baltisberger, V. T. Burger, and C. E. Brown 551

Stereochemical Kinetics of Anionic Vinyl Polymerization. I. Trapping of Stereoisomeric Anions in the Polymerization of 2-Vinylpyridine
S. S. Huang, A. H. Soum, and T. E. Hogen-Esch 559

A Mechanistic Study of the Photochemical Synthesis and Thermal Degradation of Poly(4-Methyl-4-Trichloromethyl-2,5-Cyclohexadienone)
A. C. Brisimitzakis and A. C. Karydas 565

Chemiluminescence in Autocatalytic Thermal Oxidation of Polymers
L. Zlatkevich 571

Electrical Conductivity and Film Morphology of TCNQ Salt Dispersion in Polymer Matrix
O-K. Kim 575

Book Reviews 583

Issue 8, August 1983

Electrorheological Effects in Ionomer Membranes. I. The Nafion Polymers
T. Kyu and A. Eisenberg 589

Synthesis and Evaluation of Biodegradable Block Copolymers of ϵ-Caprolactone and DL-Lactide
X. D. Feng (S. T. Voong), C. X. Song, and W. Y. Chen 593

Facile Synthesis of (+)- and (−)-Poly(triphenylmethyl Methacrylate)s and Their Macromers
Y. Okamoto, H. Shohi, and H. Yuki 601

Radiation Polymerization of 2-Hydroxyethyl Methacrylate in the Presence of Biological Substances
M. Kumakura and I. Kaetsu 609

The Gamma Ray-Induced Crosslinking of Polyacrylamide in the Solid State
G. Burillo and T. Ogawa 615

A Well-Resolved Carbazole Excimer Emission from a Conformationally Pure Polymer
L. L. Chapoy and D. Biddle 621

The Effect of Bisthioacetylacetanato Nickel(II) Compounds on Thermal Oxidation of Polyethylene
K. Kishore, V. R. P. Verneker, and G. B. Dharumaraj 627

1,3-Dialkylimidazolium Salts as Latent Catalysts in the Curing of Epoxy Resins
F. Ricciardi, W. A. Romanchick, and M. M. Joullié 633

Lipophilic Polyethylenimine Oligomers as a New Family of Synthetic Carriers for Ammonium Cations
H. Tsukube 639

Plasma-Initiated Emulsion Polymerization of Alkyl Acrylates and Methacrylates
Y. Osada and M. Takase 643

On the Structure of Resins Obtained from 3-Carene and Its Reaction with Phenol
S. P. Panda and S. G. Kulkarni 649

Photolysis of Polymeric Organosilicon Systems. I. Photocrosslinking of Polysiloxanes Containing Phenyldisilanyl Units
M. Ishikawa, N. Imamura, N. Miyoshi, and M. Kumada 657

The Influence of Thermal History on the Microstructure of Sulfonated Polystyrene Ionomers
R. A. Weiss, J. Lefelar, and H. Toriumi 661

Frictional Coefficients in Polymer Solutions and the Applicability of Scaling Laws to Experimental Data
H. Elmgren 669

Book Reviews 677

Announcements 683

Issue 9, September 1983

Transition Phenomena in Polystyrene Near the Theta Condition
C. Tsitsilianis, E. Pierri, and A. Dondos 685

Preparation of Polymer Containing Porphyrin Moiety. Radical Polymerization of 5-(4-Acryloyloxyphenyl)-10,15,20-Triphenylporphyrin
M. Kamachi, H. Akimoto, and S. Nozakura 693

Studies of the Polymerization of Diallyl Compounds. XXXIX. Chain Length Dependency of Cyclization Constant in the Cyclopolymerization of Diallyl Phthalate
A. Matsumoto, T. Nakane, and M. Oiwa 699

Cationic Grafting from Carbon Black. I. Graft Polymerization of Styrene Using $CO^{+}ClO_4^{-}$ Groups on the Surface of Carbon Black
N. Tsubokawa 705

Further Examination of the Microemulsion–Molecular Weight Method for Polyoxyethylene
L. J. Mathias, D. R. Moore, and C. B. Johnson 711

Immunoenzymatic Assays Conducted with Resin-Treated Nylon Fabrics
E. Bittencourt, N. Guimaraes, M. E. Camargo, A. W. Ferreira, and M. M. Makino .. 717

Dielectric Properties of Some Insulating Liquids
K. N. Abd-El-Nour and F. F. Hanna 723

N,N',N''-Triphenylguanidine-Sensitized Photodegradation of Polyethylene
J. Kapko 731

Effect of Moisture on the Kinetics of the Free Radical Bulk Copolymerization of Styrene and Acrylonitrile
K. S. Balaraman, B. D. Sarwade, and V. M. Nadkarni 739

Modeling of Incompatible Polymer Blend Systems
C-L. Wang, S-I. Lee, and D. Klempner 749

Phase Transition of Nematic Polymers in Elongational Flow
P. Maissa, A. T. Bosch, and P. Sixou 757

Cis–Trans Isomerization of Polyacetylene Catalyzed by Oxygen
J. C. W. Chien and X. Yang 767

Reactive Oligomers. IV. Postcopolymerization of Oligo(methyl Methylacrylate-co-Allyl Methacrylate) with Allyl Benzoate
A. Matsumoto, Y. Araki, and M. Oiwa 771

Issue 10, October 1983

Dicumyl Peroxide-Catalyzed Degradation of Polystyrene in the Presence of Maleic Anhydride
N. G. Gaylord and P. Elayaperumal 781

Spin Probe Study of Molecular Order in a Liquid Crystal Polymer
K. Mueller, K.-H. Wassmer, R. W. Lenz, and G. Kothe 785

Density Changes on Drawing by Solid-State Extrusion of High-Density Polyethylene
H. H. Chuah, R. E. DeMicheli, and R. S. Porter 791

Thermally Stimulated Depolarization of *n*-Butyl Methacrylate Ionomers
L. Aras, J. Vanderschueren, J. Niezette, and R. Vanderschueren 799

On the Use of the Raman-Active Longitudinal Acoustic Mode in the Study of Crystallite Size Distribution in Polyethylene
M. Glotin and L. Mandelkern 807

Formation of Regular Two-Phase Structure during Solution Casting of a Polymer Blend
O. Yasuda, T. Ougizawa, T. Inoue, and K. Miyasaka 813

Organosilane High Polymers: Synthesis of Formable Homopolymers
P. Trefonas III, P. I. Djurovich, X-H. Zhang, R. West, R. D. Miller, and D. Hofer ... 819

Organosilane High Polymers: Electronic Spectra and Photodegradation
P. Trefonas III, R. West, R. D. Miller, and D. Hofer 823

The Heat and Entropy of Dissociation for Trityl Hexachloroantimonate in Nitrobenzene
V. Cotillas, F. Mijangos, and L. M. León 831

Reactive Oligomers. III. Mechanical Properties of Diallyl Phthalate Resins Cocrosslinked with Glycol Bis(allyl Phthalate)s
A. Matsumoto, K. Aoki, Y. Kukimoto, M. Oiwa, M. Ochi, and M. Shimbo 837

Nucleophilic Substitution Polymerization of Pyridines: Condensation Polymerization of Dihalopyridines with Dithiols
S. Kondo, M. Nakanishi, and K. Tsuda 847

Positional Small-Angle X-Ray Scattering from Crazes
D. G. LeGrand and C. M. Forth 853

Book Reviews 859

Announcement 865

Issue 11, November 1983

Thermal cis–trans Isomerization of *cis,cis*-3,7-Decadiene: A Mode for *cis*-1,4-Polybutadiene
M. A. Golub and W. M. Lee 867

GPC Calibration for Epoxy Resins
E. Dan and M. B. Roller 875

N-Vinylcarbazole Polymerization: The Reaction Enthalpy
M. Rodriguez and L. M. León 881

Polymerization of Ethylene Oxide by Triphenylmethyl Tetrafluoroborate in Nitrobenzene
F. Mijangos and L. M. León 885

Study on Triazine Thiols. V. Polymerization of 6-(4-Vinylbenzyl Propyl) Amino-1,3,5-Triazine-2,4-Dithiol on Copper Plates and Their Corrosion Resistance
K. Mori and Y. Nakamura 889

Polymer-Supported Redox Catalysts: Determination of Apparent Surface Coverage
F. J. Gil-Llambias, L. Gargallo, D. Radic, and Román 897

An Investigation of the Raman-Active Longitudinal Acoustical Mode (LAM) in Semifluorinated *n*-Alkanes
R. Twieg and J. F. Rabolt 901

Nitric Acid Etching Studies of Compositional Heterogeneity in Mixed-Crystal Polyethylene Single Crystals
S. Krimm and C. Chang 907

Mixed-Crystal Infrared Study of Chain Mobility in Untreated and Nitric-Acid-Treated Polyethylene Single Crystals
C. Chang and S. Krimm 913

Flow-Induced Fibrillar Formation Process in Poiseuille Flow
J. Rietveld and A. J. McHugh 919

Telechelic Polymers by Group Transfer Polymerization
D. Y. Sogah and O. W. Webster 927

Production of Ultrahigh Modulus Polyoxymethylene by Drawing Under Dielectric Heating
K. Nakagawa, O. Maeda, and S. Yamakawa 933

High Swelling of Latex Particles Without the Utilization of Swelling Agents
L. H. Jansson, M. C. Wellons, and G. W. Poehlein 937

Synthesis of Nylon Containing Pendant Viologen Groups and Its Evaluation as Electron Transfer Catalyst
H. Miyama, Y. Nosaka, T. Kobayashi, and A. Kuwabara 945

Book Reviews 951

Issue 12, December 1983

Redox Polymerization Initiated by Mn^{3+} Ions in Nonaqueous Medium
S. K. Saha, N. K. Chakrabarty, and A. K. Chaudhuri 963

Raman Spectroscopic and Thermal Studies of Polyacrylamide Gels with Varying Monomer/Comonomer Ratios
M. K. Gupta and R. Bansil 969

The Heat of Acenaphthylene Polymerization
M. S. Anasagasti and L. M. Leon 979

Semiconducting Single Crystals of Polydiacetylenes
H. Nakanishi, F. Mizutani, M. Kato, and K. Hasumi 983

Oriented Polyacetylene Epitaxially Formed on Crystalline Benzene
M. Ozaki, Y. Ikeda, and T. Arakawa 989

A Photothermal Reversibly Crosslinkable Polymer System
J.-M. Chang and J. J. Aklonis 999

On the Minimum Draw Ratio Necessary for Full Chain Extension: Illustrated with Polyethylene
T. Kanamoto and R. S. Porter 1005

A Microphase Model for Sterically Stabilized Polymer Colloids: Fluorescence Energy Transfer from Naphthalene-Labeled Dispersions
O. Pekcan, M. A. Winnik, and M. D. Croucher 1011

Book Reviews 1019
Announcements 1023
Volume Title Page i
Volume Contents iii